2012 NASA IV&V Workshop Call for Papers
The 4th International Workshop on Independent Verification & Validation of Software
http://www.nasa.gov/centers/ivv/workshops/index.html
West Virginia University's Erickson Alumni Center
Morgantown, West Virginia, USA
September 11- 13, 2012

The NASA IV&V Annual Workshop offers an in-depth understanding of the challenges that V&V organizations face in assuring that system software operates safely and reliably. The goal of the workshop is to generate solutions to these challenges.

TOPICS	
Feasibility studies	Interface agents
IV&V of early lifecycle artifacts	Mobile agents
Reliability Engineering	Mobile Systems
	Autonomic computing
Service oriented requirements engineering	Adaptive Systems
Requirements Engineering	Enterprise Software, Middleware, and Tools
Software dependability	Service-centric software engineering
Software Quality	Embedded and Ubiquitous Software Engineering
Requirements quality	Knowledge Acquisition
	Human-Computer Interaction
Agent architectures, ontologies, languages and protocols	Pervasive Computing
Multi-agent systems	Swarm intelligence
Integrity, Security, and Fault Tolerance	Commercial Space
Service oriented architectures	Software Safety
Partitioned systems	Software Security
Fault Tolerance	Robotic systems
	Automotive
Off-nominal operations	DOD
Documenting critical systems	FAA
Anomaly work-around	Security
System recovery	Law Enforcement
	Power Generation and Distribution
Static and dynamic testing	Software based hazard causes, contributors, and controls
Cost effective software based test environments	Security threats and risks
Certified Test Environments	Reactive Systems
Software Test Programs	Complex algorithms
Test Oracles	Disaster Recovery planning
Verifying scripts	
Operational readiness	Software Reuse
	Generated Software
Knowledge Representation and Retrieval	Static Analysis
Knowledge Engineering Tools and Techniques	
Knowledge Visualization	Software Interfaces
Data visualization	Data integrity
Learning Software Organization	
Software Assurance	NASA systems engineering processes
Software Domain Modeling and Meta-Modeling	Computing the value of IV&V
IV&V as an explicit risk reduction strategy	Management and Planning of Independent Verification and Validation
Architecture frameworks as applied to NASA systems	Issue and Risk Tracking
Applying social media to IV&V	Criticality Analysis
Software Engineering Decision Support	
Software Maintenance and Evolution	Design completeness, correctness
Software Process Modeling	Designing for Performance
Application of Data Mining tools to support IV&V	
Modeling and simulation	**WORKSHOP SITE**
New technologies for IV&V	The IV&V Annual Workshop will be held at the WVU Erickson Alumni
	Center in Morgantown, West Virginia, USA. http://alumni.wvu.edu/eac
Agent-based software engineering	
Artificial Intelligence Approaches to Software Engineering	**INFORMATION FOR AUTHORS**
Component-Based Software Engineering	Abstracts must be written in English. An electronic (PDF or MS Word format)
Automated Software Specification	should be submitted via email to Sadie.E.Downs@nasa.gov.
Automated Software Design and Synthesis	
Computer-Supported Cooperative Work	**IMPORTANT DATES**
Measurement and Empirical Software Engineering	*April 15, 2012*　　*Abstract submission due (Updated March 6, 2012)*
Programming Languages and Software Engineering	*May 2, 2012*　　*Notification of Acceptance*
Patterns and Frameworks	*June 1, 2012*　　*Attendee Registration opens*
Reflection and Metadata Approaches	*July 1, 2012*　　*Sponsorship registration deadline*
Program Understanding	*August 31, 2012*　　*Attendee Registration closes*
Transitioning NASA experience to non-space domains	
The future of software development and its impact on IV&V	**POINTS OF CONTACT**
Software product lines	Annual IV&V Workshop: Lisa Downs, sadie.e.downs@nasa.gov
Improving effectiveness and efficiency of IV&V methods	Registration: Ashley D'Annunzio, ashley.t.dannunzio@ivv.nasa.gov
Team-based approach to performing IV&V of systems	Corporate Sponsorships: Bree Deren-Layton, bree.a.layton@ivv.nasa.gov
IV&V Challenges and Opportunites of SLDC Choices	NASA IV&V Facility, 100 University Drive, Fairmont WV 26554